

**In the Claims:**

**Claim 1 (currently amended):** A FET situated over a substrate, said FET comprising:

a channel situated in said substrate;

a first gate dielectric situated over said channel, said first gate dielectric having a first coefficient of thermal expansion;

a first gate electrode situated over said first gate dielectric, said first gate electrode having a second coefficient of thermal expansion;

wherein ~~said first gate dielectric is selected to have said first coefficient of thermal expansion and said first gate electrode~~ said first gate dielectric are is selected such that to have said second coefficient of thermal expansion is greater than said first coefficient of thermal expansion so as to cause a strain in said channel, thereby increasing an increase in carrier mobility in said FET channel.

**Claim 2 (canceled)**

**Claim 3 (currently amended):** The FET of claim ~~[[2]]~~ 1 wherein said increase in said carrier mobility is caused by a tensile strain created in said channel.

**Claims 4-5 (canceled)**

Attorney Docket No.: 0180144

**Claim 6 (currently amended):** The FET of claim 1 wherein said first gate dielectric has a thickness of between 10.0 Angstroms and 15.0 Angstroms FET-is-a PFET.

**Claims 7-8 (canceled)**

**Claim 9 (currently amended):** A FET situated over a substrate, said FET comprising a channel situated in said substrate, a first gate dielectric situated over said channel, said first gate dielectric having a first coefficient of thermal expansion, a first gate electrode situated over said first gate dielectric, said first gate electrode having a second coefficient of thermal expansion, said FET being characterized in that:

said first gate dielectric ~~being selected to have said first coefficient of thermal expansion and~~ said first gate electrode being selected such that to have a difference between said first coefficient of thermal expansion and said second coefficient of thermal expansion ~~so as to cause a strain in said channel, thereby increasing~~ causes an increase in carrier mobility in said FET channel, wherein said first gate dielectric has a thickness of between 10.0 Angstroms and 15.0 Angstroms.

**Claim 10 (original):** The FET of claim 9 wherein said second coefficient of thermal expansion is greater than said first coefficient of thermal expansion so as to cause a tensile strain in said channel, said tensile strain causing said increase in said carrier mobility.

Attorney Docket No.: 0180144

**Claims 11-12 (canceled)**

**Claim 13 (original):** The FET of claim 9 wherein said FET is a PFET, said first coefficient of thermal expansion being greater than said second coefficient of thermal expansion so as to cause a compressive strain in said channel, said compressive strain causing said increase in said carrier mobility.

**Claim 14 (canceled)**

**Claim 15 (currently amended):** A FET situated on a substrate, said FET comprising:

a channel situated in said substrate;

a gate stack situated over said channel;

a first gate dielectric situated in said gate stack, said first gate dielectric having a first coefficient of thermal expansion;

a first gate electrode situated over said first gate dielectric, said first gate electrode having a second coefficient of thermal expansion;

wherein ~~said first gate dielectric is selected to have said first coefficient of thermal expansion and~~ said first gate electrode and said first gate dielectric are is selected such that said first coefficient of thermal expansion is greater than ~~to have~~ said second coefficient of thermal expansion so as to cause ~~a compressive strain in said~~

Attorney Docket No.: 0180144

channel, thereby increasing an increase in carrier mobility in said FET channel, and  
wherein said FET is a PFET.

**Claims 16-18 (canceled)**

**Claim 19 (currently amended):** The FET of claim 15 wherein ~~said FET is a PFET,~~ said first coefficient of thermal expansion ~~being~~ is greater than said second coefficient of thermal expansion so as to cause ~~said compressive strain in said channel,~~ ~~said compressive strain causing~~ said increase in said carrier mobility by causing a compressive strain in said channel.

**Claim 20 (canceled)**

**Claim 21 (new):** The FET of claim 15 wherein said first gate dielectric has a thickness of between 10.0 Angstroms and 15.0 Angstroms.